

## Anti-Human V beta 5.1 TCR Functional Grade Purified

**Catalog Number:** 16-5832

**Also known as:** Vbeta 5.1, Vbeta5.1, Vb 5.1, Vb5.1

**RUO: For Research Use Only. Not for use in diagnostic procedures.**

### Product Information

**Contents:** Anti-Human V beta 5.1 TCR  
Functional Grade Purified

 **Catalog Number:** 16-5832

**Clone:** LC4

**Concentration:** 1 mg/mL

**Host/Isotype:** Mouse IgG1

**Handling Conditions:** Use in sterile environment.

**Endotoxin:** Less than 0.001 ng/ug antibody, as determined by the LAL assay.

**Formulation:** aqueous buffer, no sodium azide

**Temperature Limitation:** Store at 2-8°C.

 **Batch Code:** Refer to vial

 **Use By:** Refer to vial

### Description

This LC4 monoclonal antibody recognizes the human T cell receptor (TCR) Vβ5.1 allele. Composed of an α and β chain, TCR specificity is typically determined by Vαα, Jα, Vβ, Dβ, and Jβ gene rearrangement. Vβ expression in humans has been examined in studies on the effects of superantigens, inflammation, autoimmune disease, and HIV infection. More recently, assessment of TCR Vβ expression has been used to phenotype T cell clonality in CD3+/TCRαβ+ large granular lymphocyte leukemias. A member of the Ig superfamily, this receptor is expressed on a subset of peripheral blood T cells.

This monoclonal antibody has been reported to induce apoptosis and calcium flux.

### Applications Reported

This LC4 antibody has been reported for use in functional assays to induce apoptosis and calcium flux.

### Applications Tested

This LC4 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (ug) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

### References

Dong T, Stewart-Jones G, Chen N, Easterbrook P, Xu X, Papagno L, Appay V, Weekes M, Conlon C, Spina C, Little S, Screaton G, van der Merwe A, Richman DD, McMichael AJ, Jones EY, Rowland-Jones SL. HIV-specific cytotoxic T cells from long-term survivors select a unique T cell receptor. *J Exp Med*. 2004 Dec 20;200(12):1547-57.

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Takahashi S, Maecker HT, Levy R. DNA fragmentation and cell death mediated by T cell antigen receptor/CD3 complex on a leukemia T cell line. *Eur J Immunol*. 1989 Oct;19(10):1911-9. (LC4, FA, Pubmed)

Maecker HT, Levy R. Prevalence of antigen receptor variants in human T cell lines and tumors. *J Immunol*. 1989 Feb 15;142(4):1395-404. (LC4, FC, Pubmed)

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### Related Products

16-4714 Mouse IgG1 K Isotype Control Functional Grade Purified (P3.6.2.8.1)